

Appl. No. 09/747,327  
Amdt. dated August 23, 2004  
Reply to Office action of Apr. 22, 2004

**Amendments to the Claims:**

Please amend claims 2-6 and 8, 16 and 15, as shown in the listing of claims.

The following listing of claims will replace all prior versions and listings of claims in the application:

1. (original) An apparatus for use in multi-channel communication comprising:  
a physical layer entity (PHY) including a physical coding sublayer (PCS) transmitter circuit that is operative to generate a plurality of encoded symbols according to one of at least two transmission encoding schemes; and  
wherein the PHY is operative to select between the at least two encoding schemes.
2. (currently amended) The apparatus of claim 1 wherein one of the transmission encoding schemes is based on a 1000BASE-T standard.
3. (currently amended) The apparatus of claim 1 wherein one of the transmission encoding schemes is based on a legacy encoding standard.
4. (currently amended) The apparatus of claim 1 wherein the PHY is operative upon ~~resolving to~~ assuming the role of a slave device to monitor data transmitted by a remote master device, determine the encoding type of the master device, and select the corresponding encoding scheme.
5. (currently amended) The apparatus of claim 1 wherein the PHY is operative upon ~~resolving to~~ assuming the role of a master device to transmit data to a remote slave device, determine whether a link is achieved with the remote slave device, and selecting a different encoding scheme if a link is not achieved.

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6. (currently amended) The system of claim 1, wherein the PHY is operative in response to ~~resolving to~~ assuming the role of a slave device to monitor channel A IDLE symbols, to compare those symbols with expected symbols, and to automatically switch encoding schemes if no match is found.

7. (original) The system of claim 6, wherein the PHY is operative to initially set a polarity value to a first value, and to switch the polarity value to a second value if the comparison of received symbols with expected symbols fails.

8. (currently amended) The system of claim 1, wherein the PHY is operative in response to ~~resolving to~~ assuming the role of a master device to transmit channel A IDLE symbols, to determine whether a link is achieved with a remote device, and to automatically switch encoding schemes if no link is established.

9. (original) A method of achieving a communication link between a pair of transceivers, where one transceiver is a master device and the other transceiver is a slave device, the method comprising:

generating, at the master device, a plurality of encoded symbols according to a first transmission encoding scheme;

determining, at the master device, if a link is achieved with the slave device; and

changing the encoding scheme at the master device if no link is achieved with the slave device.

10. (original) The method of claim 9 wherein one of the transmission encoding schemes is based on a 1000BASE-T standard.

11. (original) The method of claim 9 wherein one of the transmission encoding schemes is based

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on a legacy encoding standard.

12. (original) A method of achieving a communication link between a pair of transceivers, where one transceiver is a master device and the other transceiver is a slave device, the method comprising:

generating, at the master device, a plurality of encoded symbols according to a first transmission encoding scheme;

transmitting the encoded symbols to the slave device;

processing the encoded symbols at the slave device to determine the encoding scheme utilized by the master device; and

setting the encoding type of the slave device to match that of the master device, if the encoding type of the slave device is set to a different encoding type.

13. (original) The method of claim 12 wherein one of the transmission encoding schemes is based on a 1000BASE-T standard.

14. (original) The method of claim 12 wherein one of the transmission encoding schemes is based on a legacy encoding standard.

15. (currently amended) The method of claim 12, wherein processing comprises monitoring channel ~~A-IDLE~~ symbols transmitted by the master device, comparing those symbols with expected symbols, and automatically switching encoding schemes if no match is found.

16. (currently amended) The ~~system~~ method of claim 15, further comprising setting a polarity value of the slave device to a first value, and switching the polarity value to a second value if the comparison of received symbols with expected symbols fails.